

What is claimed is:

- 1        1.    A method comprising:  
2            causing data of a first type to be stored in a first  
3    level of a unified memory device and data of a second type  
4    to be stored in a second level of the unified memory  
5    device.
  
- 1        2.    A method as defined in Claim 1, wherein the data  
2    of a first type is persistent data and the data of a second  
3    type is dynamic data.
  
- 1        3.    A method as defined in Claim 1, further  
2    comprising:  
3            causing a logical memory management boundary to be  
4                    disposed between the first level and the second  
5                    level.
  
- 1        4.    A method as defined in Claim 3, further  
2    comprising:  
3            causing data fragments to be stored in segments of the  
4                    first level by application of a fragmented store  
5                    algorithm.

1        5.    A method as defined in Claim 4, wherein the data  
2 fragments are stored in respectively ascending segments of  
3 the first level.

1        6.    A method as defined in Claim 5, wherein data  
2 units are stored in segments respectively ascending from  
3 the memory management boundary.

1        7.    A method as defined in Claim 2, further  
2 comprising:  
3        causing data fragments to be stored in respectively  
4        ascending segments of the first level by  
5        application of a fragmented store algorithm.

1        8.    A method as defined in Claim 7, wherein data  
2 units are stored in respectively descending segments of the  
3 second memory level.

- 1        9.    An apparatus comprising:  
2        a first level to store persistent data;  
3        a second level to store dynamic data; and  
4        a memory management boundary disposed between the  
5        first level and the second level.
- 1        10.   An apparatus as defined in Claim 9, wherein:  
2        the first level comprises a plurality of data  
3        fragments and a plurality of unit headers, each  
4        of the unit headers associated with a respective  
5        one of the plurality of data fragments; and  
6        the second level comprises a plurality of object  
7        pointers and a plurality of data units, each of  
8        the object pointers associated with a respective  
9        one of the plurality of data units.
- 1        11.   An apparatus as defined in Claim 10, wherein the  
2        first level comprises, in respectively ascending order:  
3        a first unit header;  
4        a first data fragment; and  
5        a sequence table.
- 1        12.   An apparatus as defined in Claim 11, wherein the  
2        memory management boundary is logically fixed.

1        13. An apparatus as defined in Claim 12, wherein the  
2 first level comprises an unused area between a data  
3 fragment segment and a sequence table and the second level  
4 comprises an unused area between an object pointer and a  
5 data unit segment.

1        14. An apparatus as defined in Claim 11, wherein the  
2 memory management boundary is logically configurable.

1        15. An apparatus as defined in Claim 14, further  
2 comprising an unused area between a sequence table in the  
3 first level and a data unit in the second level.

1        16. An apparatus as defined in Claim 15, wherein  
2 object pointers and respective associated data units occupy  
3 alternatively descending positions in the second level.

1        17. A machine-readable storage article comprising  
2 instructions that, if executed, enable a system to:  
3        store persistent data in a first memory level of a  
4            unified memory device; and  
5        store dynamic data in a second memory level of the  
6            unified memory device.

1        18. A machine readable storage article as defined in  
2 Claim 17 further comprising instructions that, if executed,  
3 enable the system to:  
4        store a plurality of persistent data fragments in the  
5            first memory level;  
6        store a plurality of unit headers in the first memory  
7            level, each of the unit headers being associated  
8            with a respective one of the plurality of  
9            persistent data fragments;  
10       store a plurality of dynamic data units in the second  
11            memory level; and  
12       store a plurality of object pointers in the second  
13            memory level, each of the object pointers  
14            associated with a respective one of the dynamic  
15            data units.

1        19. A machine readable storage article as defined in  
2 Claim 18 further comprising instructions that, if executed,  
3 enable the system to:  
4        store a plurality of sequence tables in the first  
5        memory level.

1        20. A machine readable storage article as defined in  
2 Claim 19 further comprising instructions that, if executed,  
3 enable the system to:  
4        cause data fragments to occupy ascending segments in  
5        the first memory level;  
6        cause sequence tables to occupy descending segments in  
7        the first memory level;  
8        cause object pointers to occupy descending segments in  
9        the second memory level; and  
10       cause data units to occupy ascending segments in the  
11       second memory level.

1        21. A machine readable storage article as defined in  
2 Claim 20 further comprising instructions that, if executed,  
3 enable the system to:  
4        cause data fragments and unit headers to occupy  
5        respectively alternating positions in the first  
6        memory level;  
7        cause cause sequence tables to occupy contiguous  
8        positions in the first memory level;

9           cause object pointers to occupy contiguous positions  
10                 in the second memory level; and  
11           cause data units to occupy contiguous positions in the  
12                 second memory level.

1           22. A machine readable storage article as defined in  
2   Claim 18 further comprising instructions that, if executed,  
3   enable the system to:  
4           cause data fragments to occupy ascending positions in  
5                 the first memory level;  
6           cause sequence tables to occupy descending positions  
7                 in the first memory level;  
8           cause object pointers to occupy descending positions  
9                 in the second memory level; and  
10          cause data units to occupy ascending positions in the  
11                 second memory level.

1           23. A machine readable storage article as defined in  
2   Claim 22 further comprising instructions that, if executed,  
3   enable the system to:  
4           cause data fragments and unit headers to occupy  
5                 respectively alternating positions in the first  
6                 memory level;  
7           cause cause sequence tables to occupy contiguous  
8                 positions in the first memory level; and

9        cause object pointers and data units to occupy  
10                respectively alternating positions in the second  
11                memory level.



1        24. A system comprising:  
2        a storage device to store instructions that, if  
3        executed, are effective to:  
4        store persistent data in a first level of a unified  
5        memory device;  
6        store dynamic data in a second level of the unified  
7        memory device; and  
8        an antenna coupled to the storage device.

1        25. A system as defined in Claim 24, wherein the  
2        persistent data comprises a plurality of data fragments and  
3        the dynamic data comprises a plurality of data units.

1        26. A system as defined in Claim 25, further  
2        comprising instructions that, if executed, are effective  
3        to:  
4        store a plurality of unit headers in the first level,  
5        wherein each unit header is associated with a  
6        data fragment and a data unit.

1        27. A system as defined in Claim 26, further  
2        comprising instructions that, if executed, are effective  
3        to:  
4        store at least one sequence table in the first level,  
5        the sequence table to link data fragments.

1        28. A system as defined in Claim 27, further  
2 comprising instructions that, if executed, are effective  
3 to:  
4        store a plurality of object pointers in the second  
5            level, each object pointer being associated with  
6            a respective one of the data units.

1        29. A system as defined in Claim 28, further  
2 comprising instructions that, if executed, are effective to  
3 store data units in the second memory level in contiguous  
4 memory segments that ascend from a logically fixed memory  
5 management boundary.

1        30. A system as defined in Claim 28, further  
2 comprising instructions that, if executed, are effective to  
3 establish a configurable memory management boundary between  
4 the first level and the second level.